



# **Horizontal Accuracy Evaluation of DigitalGlobe QuickBird II Orthorectified Products Over Kaintuck Hollow, Missouri Test Site**

**Terry Felkerson, Mike Duncan, Gerald Wilkerson**  
**U.S. Geological Survey-Geography Discipline**  
**Mid-Continent Mapping Center – Rolla, Missouri**

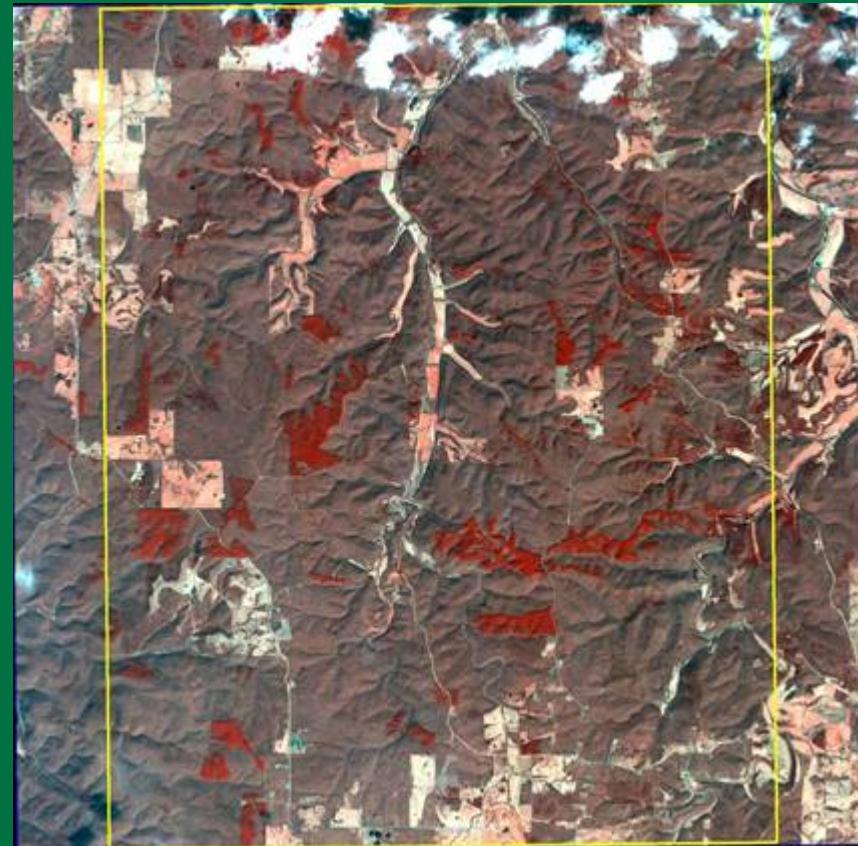
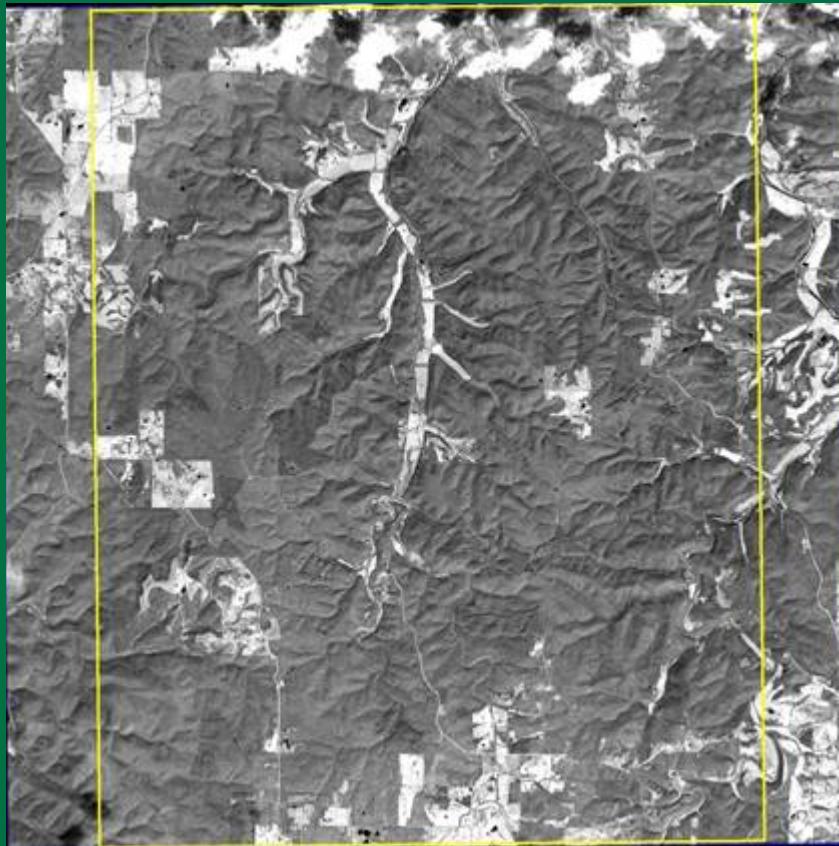
**May 19, 2003**

# **Products delivered from DigitalGlobe included:**

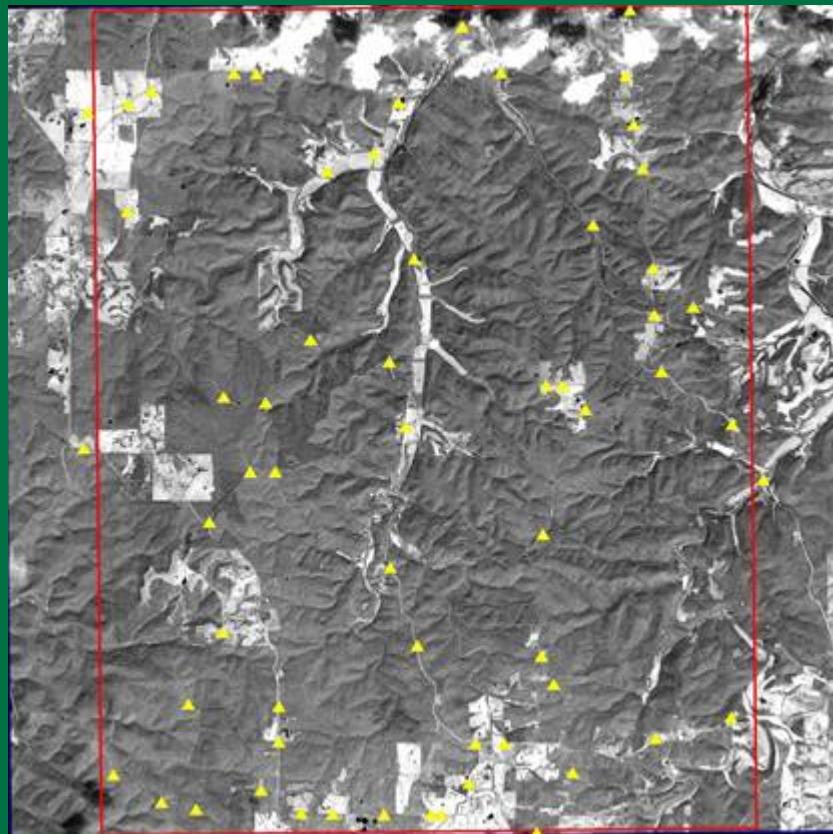
---

- 1. Orthorectified Panchromatic at 1:25,000-scale**
  - 2. Orthorectified Multispectral at 1:25,000-scale**
- 
- Date of imagery collection: March 15, 2003**
  - Delivered to MCMC: April 22, 2003**

# Kaintuck Hollow Quadrangle

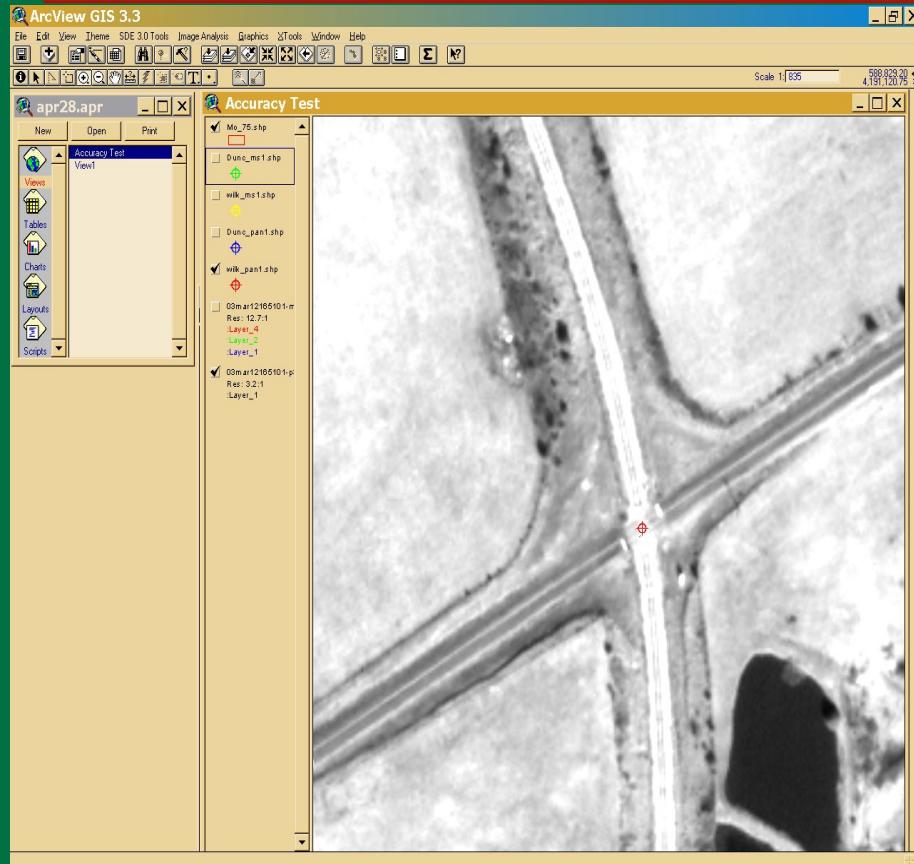


# Control Points



- Independently surveyed ground control points were established over the Kaintuck Hollow, MO quadrangle in the fall of 2002.
- A network of 70 test points was collected utilizing static GPS collection methods.
- Of the 70 horizontal control points, 60 points were used in the panchromatic evaluation, and 59 in the multispectral evaluation. The remaining points were not clearly photo-identifiable in the imagery and were unusable.

# Test Point Collection



- Arc/View GIS 3.3 was used to measure the points for input to the horizontal accuracy test
- The evaluators used a zoom factor that enabled the best image measurement for each point

# Evaluation Results:

## Both Orthorectified Products Met Accuracy Standards

QuickBird II Orthorectified Data	RMSE (m)	NSSDA at 95% confidence (m)	CMAS at 90% confidence (m)	QuickBird II Specifications (m)
Panchromatic 1:25,000 Evaluator A	3.64	6.30	5.52	12.7
Panchromatic 1:25,000 Evaluator B	4.27	7.39	6.48	12.7
Multispectral 1:25,000 Evaluator A	4.11	7.11	6.23	12.7
Multispectral 1:25,000 Evaluator B	3.53	6.11	5.36	12.7

\*QuickBird II specifications from DigitalGlobe.com